

U.S.S.N. 09/101,413

Filed: August 7, 1998

AMENDMENT AND RESPONSE TO OFFICE ACTION

Appendix: Clean Copy of Claims As Pending After Entry of the Amendment

1. (Twice amended) A method of killing cells in a patient with a disease characterized by expression by the patient of an abnormal molecule or an abnormally elevated amount of a molecule as compared to the non-diseased state, or by expression of an infectious agent protein, the method comprising
administering to the patient a therapeutically effective amount of cytotoxic T lymphocytes (CTL),
D1 wherein the CTLs have a different HLA class I complex (or equivalent) than the cells to be killed, and
the CTLs specifically recognize a peptide portion of the abnormal molecule or molecule which is abnormally elevated in patients with the disease or the infectious agent protein, when the peptide is presented by the HLA class I complex (or equivalent) on the surface of cells to be killed, wherein the HLA class I complex (or equivalent) type presenting the peptide in the cells to be killed is not present in the CTLs to be administered to the patient, and
the CTLs kill the presenting cells.

2. A method according to Claim 1 wherein the CTL are a clonal population of CTL.
3. (Amended) A method according to Claim 1 wherein the CTL are substantially free of other cell types.
4. (Amended) A method according to Claim 1 wherein the molecule is a polypeptide.
5. (Twice amended) A method according to Claim 4 wherein the polypeptide is a mutant polypeptide associated with the diseased cells.

U.S.S.N. 09/101,413

Filed: August 7, 1998

AMENDMENT AND RESPONSE TO OFFICE ACTION

6. (Amended) A method according to Claim 4 wherein the polypeptide is present at a higher level in the diseased cells compared to non-diseased cells.

7. (Amended) A method according to Claim 1 wherein the disease is a cancer.

8. A method according to Claim 7 wherein the cancer is any one of breast cancer; bladder cancer; lung cancer; prostrate cancer; thyroid cancer; leukaemias and lymphomas such as CML, ALL, AML, PML; colon cancer; glioma; seminoma; liver cancer; pancreatic cancer; bladder cancer; renal cancer; cervical cancer; testicular cancer; head and neck cancer; ovarian cancer; neuroblastoma and melanoma.

9. (Amended) A method according to Claim 1 wherein the disease is caused by a chronic viral infection.

D2
10. (amended) A method according to Claim 9 wherein the virus is selected from the group consisting of HIV, papilloma virus, Epstein-Barr virus, HTLV-1, hepatitis B virus, hepatitis C virus and herpes virus.

11. A method according to Claim 10 wherein the virus is HIV.

12. (Amended) A method according to Claim 1 wherein the disease is associated with an abnormally elevated amount of a hormone.

13. (Amended) A method according to Claim 1 wherein the disease is a bacterial disease caused by a chronic bacterial infection.

14. (Amended) A method according to Claim 1 further comprising the step of determining the HLA class I (or equivalent) molecule type of the patient prior to administration of the CTL.

U.S.S.N. 09/101,413

Filed: August 7, 1998

AMENDMENT AND RESPONSE TO OFFICE ACTION

15. (Amended) A method according to Claim 14 wherein the type is determined using DNA typing.

16. (Amended) A method according to Claim 1 wherein the patient is human.

17. (Amended) A method according to Claim 14 wherein the cytotoxic T lymphocyte is selected from a library of CTL clones, the library comprising a plurality of CTL clones derived from individuals with differing HLA class I (or equivalent) molecule type and each CTL clone recognises the diseased cells.

18. (Amended) A method according to Claim 17 wherein each CTL clone recognises at least part of the same molecule contained in or associated with the diseased cells.

Please cancel claims 20-24.

25. (Twice Amended) A method according to Claim 1 wherein the cells to be killed are selected from the group consisting of a cancer cell, a virus-infected cell, a bacterium infected cell and a cell expressing an abnormally elevated amount of a hormone.

26. (Twice Amended) A method according to Claim 1 wherein the patient is a human.

D3
27. (Twice Amended) A method according to Claim 1 wherein the molecule is selected from the group consisting of cyclin D1, cyclin E, mdm 2, EGF-R, erb-B2, erb-B3, FGF-R, insulin-like growth factor receptor, Met, myc, p53, BCL-2, mutant p53, a polypeptide associated with the BCR/ABL translocation in CML and ALL, mutant CSF-1 receptor, mutant APC, mutant RET, mutant EGFR, a polypeptide associated with PML/RARA translocation in PML, a polypeptide associated with E2A-PBX1 translocation in pre B leukaemias and in childhood acute leukaemias, human papilloma virus proteins, Epstein-Barr virus proteins, HTLV-1 proteins,

U.S.S.N. 09/101,413

Filed: August 7, 1998

AMENDMENT AND RESPONSE TO OFFICE ACTION

hepatitis B virus proteins, hepatitis C virus proteins, herpes-like virus proteins and HIV encoded proteins.

DB
28. (Twice Amended) A method according to Claim 1 further comprising determining the HLA Class I (or equivalent) type of the healthy individual.

29. (Amended) A method according to Claim 28 wherein the HLA class I (or equivalent) type is determined by DNA analysis.